

January 16, 2002

Mr. Will Lewallen  
Wabash National Corporation  
P.O. Box 6129  
Lafayette, IN 47903

Re: **157-15068-00046**  
Minor Permit Modification to:  
Part 70 permit No.: **T157-6070-00046**

Dear Mr. Lewallen:

Wabash National Corporation was issued Part 70 operating permit T157-6070-00046 on June 25, 1999 for a stationary truck trailer assembly operation. An application to modify the source was received on November 7, 2001. Pursuant to 326 IAC 2-7-12, a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document. the following emission units are approved for construction at the source:

one (1) surface coating booth, identified as PB19, with a maximum capacity of 2.5 metal trailers per hour, using airless and air atomized spray application, panel filters for overspray control, and exhausting emissions to stack PB1S.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

Attachments  
SDF

cc: File - Tippecanoe County  
Tippecanoe County Health Department  
Air Compliance Section Inspector - Jim Thorpe  
Compliance Data Section - Karen Nowak  
Administrative and Development - Janet Mobley  
Technical Support and Modeling - Michele Boner

**PART 70 OPERATING PERMIT  
and ENHANCED NEW SOURCE REVIEW  
OFFICE OF AIR QUALITY**

**Wabash National Corporation  
1000 Sagamore Parkway South  
Lafayette, Indiana 47903**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: 157-6070-00046	Date Issued: June 25, 1999
First Administrative Amendment: 157-8674-00046	Date Issued: March 2, 1998
First Significant Permit Modification: 157-11744-00046	Date Issued: June 28, 2000
First Minor Permit Modification: T157-15068-00046	Affected Pages: 3, 5, 6, 29, 30, 31, 32, and 45, with 30a added
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 16, 2002

- C.11 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]
- C.12 Monitoring Methods [326 IAC 3]
- C.13 Pressure Gauge Specifications

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

- C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]
- C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5]
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)]
- C.19 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]
- C.20 General Record Keeping Requirements [326 IAC 2-7-5(3)]
- C.21 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

**Stratospheric Ozone Protection**

- C.22 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.1 FACILITY OPERATION CONDITIONS - Sixteen (16) surface coating operations**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]
- D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
- D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]
- D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.1.6 Volatile Organic Compounds (VOC)
- D.1.7 Volatile Organic Compounds (VOC)

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.1.8 Pollution Control Equipment
- D.1.9 Monitoring

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.1.10 Record Keeping Requirements
- D.1.11 Reporting Requirements

**D.2 FACILITY OPERATION CONDITIONS - Three (3) shotblasters**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.2.1 Particulate Matter (PM)[326 IAC 6-3] [326 IAC 2-2 and 40 CFR 52.21 (Prevention of Significant Deterioration)]

**Compliance Determination Requirements**

- D.2.2 Testing Requirements [326 IAC 2-7-6(1),(6)]
- D.2.3 Particulate Matter (PM)

**D.3 FACILITY OPERATION CONDITIONS - Welding and cutting of metal operations**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.3.1 Particulate Matter Limitations [326 IAC 6-3-2]

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

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The Permittee owns and operates a stationary truck trailer assembly plant.

Responsible Official: Mr. Will Lewallen  
Source Address: 1000 Sagamore Parkway South, Lafayette, IN 47905  
Mailing Address: P.O. Box 6129, Lafayette, IN 47903  
SIC Code: 3715  
County Location: Tippecanoe  
County Status: Attainment for all criteria pollutants  
Source Status: Part 70 Permit Program  
Major Source, under PSD Rules;  
Major Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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The source consists of the following permitted emission units and pollution control devices:

- (1) Seventeen (17) surface coating operations, identified as:
  - (a) PB1, with a maximum capacity of 4.15 metal couplers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB1S,
  - (b) PB2, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB2S,
  - (c) PB3, with a maximum capacity of 1.83 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB3S,
  - (d) PB4, with a maximum capacity of 1.83 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB4S,
  - (e) PB5, with a maximum capacity of 0.375 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB5S,
  - (f) PB7, with a maximum capacity of 4.15 metal couplers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB7S,
  - (g) PB8, with a maximum capacity of 554.2 metal crossmembers per hour, using dip coating, and a 2.07 MMBtu/hr natural gas regenerative thermal oxidizer, RTOX, for control, and exhausting to stack PB8S,

- (h) PB9, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB9S,
- (i) PB10, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB10S,
- (j) PB11, with a maximum capacity of 0.25 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB11S,
- (k) PB12, with a maximum capacity of 0.67 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB12S,
- (l) PB13, with a maximum capacity of 1.46 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB13S,
- (m) PB14, with a maximum capacity of 7.25 metal axles per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB14S,
- (n) PB15, with a maximum capacity of 1.46 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB15S,
- (o) PB17, with a maximum capacity of 0.21 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB17S,
- (p) PB19, with a maximum capacity of 2.5 metal trailers per hour, using airless and air atomized spray application, panel filters for overspray control, and exhausting emissions to stack PB1S, and
- (q) RC, with a maximum capacity of 5.66 metal trailer interiors per hour, using rollcoating application method, and no control, and exhausting to stack RCS,
- (2) Three (1) shot blasters, identified as:
  - (a) BB1, with a maximum capacity of 3.7 tons of steel shot per hour, using a baghouse, identified as BH1as control, and exhausting to stack BH1S,
  - (b) BB2, with a maximum capacity of 1.26 tons of steel shot per hour, using a baghouse, identified as BH2as control, and exhausting to stack BH2S,
  - (c) BB3, with a maximum capacity of 1.26 tons of steel shot per hour, using a baghouse, identified as BH3as control, and exhausting to stack BH3S.

## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

Seventeen (17) surface coating operations, identified as:

- (a) PB1, with a maximum capacity of 4.15 metal couplers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB1S,
- (b) PB2, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB2S,
- (c) PB3, with a maximum capacity of 1.83 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB3S,
- (d) PB4, with a maximum capacity of 1.83 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB4S,
- (e) PB5, with a maximum capacity of 0.375 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB5S,
- (f) PB7, with a maximum capacity of 4.15 metal couplers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB7S,
- (g) PB8, with a maximum capacity of 554.2 metal crossmembers per hour, using dip coating, and a 2.07 MMBtu/hr natural gas regenerative thermal oxidizer, RTOX, for control, and exhausting to stack PB8S,
- (h) PB9, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB9S,
- (i) PB10, with a maximum capacity of 2.42 metal bogies per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB10S,
- (j) PB11, with a maximum capacity of 0.25 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB11S,
- (k) PB12, with a maximum capacity of 0.67 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB12S,
- (l) PB13, with a maximum capacity of 1.46 metal trailers per hour, using the airless and air atomized spray application method, and panel filters for overspray control, and exhausting to stack PB13S,

**Facility Description [326 IAC 2-7-5(15)]**

- cont. Seventeen (17) surface coating operations, identified as:
- (m) PB14, with a maximum capacity of 7.25 metal axles per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB14S,
  - (n) PB15, with a maximum capacity of 1.46 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB15S,
  - (o) PB17, with a maximum capacity of 0.21 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB17S,
  - (p) PB19, with a maximum capacity of 2.5 metal trailers per hour, using airless and air atomized spray application, panel filters for overspray control, and exhausting emissions to stack PB1S, and
  - (q) RC, with a maximum capacity of 5.66 metal trailer interiors per hour, using rollcoating application method, and no control, and exhausting to stack RCS.

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9 (Miscellaneous Metal Coating)]**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booths, PB1 - PB5, PB7, PB9 - PB15, PB17, and PB19, the roll coating line, RC, and at the dip line, PB8, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

**D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]**

- (a) Pursuant to CP-157-4162, Plant ID 157-00046, issued on June 23, 1995,
  - (1) the total amount of VOC delivered to the applicator of spray operations PB1 - PB5, PB7, and PB9, shall not exceed 257.9 tons per 365 day period rolled on a daily basis.
  - (2) The input of VOC to the crossmember dip line, PB8, and the usage of cleanup solvent shall be limited to 595.1 tons per 365 day period rolled on a daily basis. This limitation will prevent the VOC emissions from the crossmember dip line from being greater than 29.78 tons per year. This limitation is based upon the use of a control device on the crossmember dip line with an overall control efficiency of 95%.
  - (3) Any change or modification which may increase potential to emit of VOC to 290 tons per year from the equipment listed in (a)(1) and (2) of this condition shall obtain a PSD permit.
- (b) Pursuant to OP 4100-0046-0464, issued on October 9, 1990 and Minor Source Modification 157-15034-00046,

- (1) the total amount of organic solvents delivered to the spray painting operations, PB10 - PB15, PB17, and PB19, including solvents from coatings, thinners and cleaning solvents, shall be limited to 249.6 tons per consecutive 12 month period.



- (2) Any change or modification which may increase potential to emit VOC of 250 tons per year from the equipment listed in (b)(1) of this condition shall obtain a PSD permit.

**D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]**

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Pursuant to 326 IAC 6-3-2, the particulate matter from the surface coating operations, PB1 - PB5, PB7, PB9, PB10 - PB15, PB17, and PB19, shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

The dry filters shall be in operation at all times the spray coating is in operation, in order to comply with this limit.

**D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)]**

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During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC capture and destruction efficiency testing of the thermal oxidizer, RTOX, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

**D.1.6 Volatile Organic Compounds (VOC)**

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Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

**D.1.7 VOC Emissions**

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- (a) Compliance with Condition D.1.2(a)(1) and (a)(2) shall be demonstrated at the end of each day based on the total volatile organic compound usage for the most recent 365 day period.
- (b) Compliance with Condition D.1.2(b) shall be demonstrated at the end of each month based on the total volatile organic compound usage for the most recent twelve month period.

## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

### **D.1.8 Pollution Control Equipment**

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- (a) Pursuant to both CP 157-4162, Plt ID 157-00046, issued on June 23, 1995, OP 4100-0046-0464, issued on October 9, 1990, and minor source modification 157-15034-00036, the dry filters for PM control shall be in operation at all times when the fifteen (15) paint booths (PB1 - PB5, PB7, PB9 - PB15, PB17, and PB19) are in operation.
- (b) Pursuant to CP 157-4162, Plt ID 157-00046, issued on June 23, 1995, the regenerative thermal oxidizer, RTOX, for VOC control shall be in operation at all times when the dip line, PB8, is in operation.

### **D.1.9 Monitoring**

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The compliance monitoring requirements applicable to this equipment are as follows:

The spray coating operations have applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, daily observations shall be made of the overspray while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) The particulate matter overspray from the surface coating facilities shall be considered in compliance with 326 IAC 6 provided that the overspray is not
  - (1) visibly detectable at the exhaust,
  - (2) accumulated on the rooftops or on the ground.
- (d) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

The dip line, PB8, VOC emissions are controlled by the regenerative thermal oxidizer, RTOX, and has applicable compliance monitoring conditions as specified below:

- (a) A continuous monitoring system shall be calibrated, maintained, and operated on the capture system for measuring air flow rate when ever the crossmember dip line is operated and cleaned. The output of this system shall be recorded, and that air flow rate shall be that which demonstrates compliance with 100 % capture.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR MANAGEMENT  
COMPLIANCE DATA SECTION**

**Part 70 Quarterly Report**

Source Name: Wabash National Corporation  
Source Address: 1000 Sagamore Parkway South, Lafayette, IN 47903  
Mailing Address: P.O. Box 6129, Lafayette, IN 47903  
Part 70 Permit No.: T157-6070-00046  
Facility: PB10 - PB15, PB17, and PB19  
Parameter: VOC  
Limit: 249.6 tons per year

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Minor Permit Modification to a Part 70 Permit**

#### **Source Background and Description**

Source Name:	Wabash National Corporation
Source Location:	1000 Sagamore Parkway South, Lafayette, IN 47905
County:	Tippecanoe
SIC Code:	3715
Operation Permit No.:	T157-6070-00046
Operation Permit Issuance Date:	June 25, 1999
First Minor Permit Modification No.:	157-15068-00046
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a Minor Permit Modification application from Wabash National Corporation for the addition of one (1) surface coating booth to their existing truck trailer assembly operation.

#### **Request**

On November 7, 2001, Wabash National submitted an application to install and operate:

One (1) surface coating booth, identified as PB19, coating trailers at a maximum rate of 2.5 trailers per hour, with PM and PM10 emissions controlled by a dry filter system, and emissions exhausted through Stack PB1S.

#### **Existing Approvals**

The source was issued T157-6070-00046 on June 25, 1999. The source has been operating under this permit, First Administrative Amendment (157-8674-00046), issued on March 2, 1998, and First Significant Permit Modification (157-11744-00046), issued on June 28, 2000.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Recommendation**

The staff recommends to the Commissioner that the Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

## Emission Calculations

### UNRESTRICTED POTENTIAL TO EMIT DUE TO THE MODIFICATION:

The following calculations determine the PM, PM10, VOC and HAP UPTD based on coatings used at the booth, the respective maximum gal/unit, the maximum units/hr, the chemical properties of the coatings as obtained from the MSDS, emissions before controls, and 8760 hours of operation.

$$\text{VOC: VOC (tons/yr)} = \text{lb/gal} * \text{fraction VOC} * \text{gal/unit} * \text{unit/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton/lb}$$

Coating	lb/gal	fraction VOC	maximum gal/unit	maximum unit/hr	VOC (ton/yr)
AAA0500	11.8	.277	.5	2.5	17.96
ZPG-9035	7.6	.434	.125	2.5	4.51
Solvent	7.3	1.00	0.00913	2.5	0.73
<b>Total</b>					<b>23.20</b>

The coatings are applied "as supplied".

$$\text{PM: PM (tons/yr)} = \text{lb/gal} * \text{gal/unit} * \text{unit/hr} * (1 - \text{fraction VOC}) * (1 - \text{TE}) * 8760 \text{ hr/yr} * 1/2000$$

Coating	lb/gal	maximum gal/unit	maximum unit/hr	Fraction VOC	Fraction Transfer Eff. (TE)	PM* (ton/yr)
AAA0500	11.8	.5	2.5	.277	.5	23.35
ZPG-9035	7.6	.125	2.5	.434	1	0.00
Solvent	7.3	0.00913	2.5	1.00	1	0.00
<b>Total</b>						<b>23.35</b>

\* PM10 is determined to be equal to PM.

$$\text{HAP: HAP (tons/yr)} = \text{lb HAP/hr} * 8760 \text{ hr/yr} * 1/2000 \text{ ton HAP/lb HAP}$$

Coating	Maximum lb HAP/hr	HAP (ton/yr)
Xylene	0.73	3.20
Glycol Ethers	0.30	1.31
Ethyl Benzene	0.025	0.11
<b>Total</b>		<b>4.62</b>

### EMISSIONS AFTER CONTROLS:

The only emissions controlled are the paint booth PM/PM10 emissions. The emissions are controlled by a dry filter system with a design control of 98%.

The following calculations determine the emissions after controls from the paint booth based on the emissions before controls, a design control efficiency of 98%, and 8760 hours of operation.

PM/PM10 Emissions Before Controls (tons/yr) \* (1 - 0.98) = tons (PM/PM10)/yr

Coating	PM* Emissions Before Controls (ton/yr)	Control Efficiency	PM Emissions After Controls (tons/yr)
AAA0500	23.35	98%	0.47
ZPG-9035	0.00	98%	0.00
Solvent	0.00	98%	0.00
<b>Total</b>			<b>0.47</b>

\* PM10 is determined to be equal to PM.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	23.35
PM-10	23.35
SO <sub>2</sub>	-
VOC	23.20
CO	-
NO <sub>x</sub>	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Pollutant	Potential To Emit (tons/year)
Xylene	<b>3.20</b>
Glycol Ethers	1.31
Ethyl Benzene	0.11
Total Combined HAPs	<b>4.62</b>

### Permit Justification

Minor source modification 157-15034-00046 shall be incorporated into the Part 70 permit via a minor permit modification pursuant to 326 IAC 2-7-12.

### County Attainment Status

The source is located in Tippecanoe County.

Pollutant	Status
PM <sub>10</sub>	attainment or unclassifiable
SO <sub>2</sub>	attainment or unclassifiable
NO <sub>2</sub>	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.
- (b) Tippecanoe County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

### Existing Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

	PM (tons/yr)	PM <sub>10</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	NO <sub>x</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	<100	<100	<100	<100	>250	<100	62.0125	105.333

- (a) The existing source is a major PSD stationary source because the VOC emissions exceed the applicable PSD level of 250 tons per year.
- (b) The existing source is a Title V major stationary source because the VOC, worst case single HAP, and combined HAP emissions exceed their respective applicable levels of 100, 10, and 25 tons per year.

### Source Emissions After the Modification

	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	14.89	14.89	<100	<100	537.28	<100	62.0125	105.333
Modification	0.47	0.47	-	-	23.20	-	3.20	4.62
After Mod.	15.36	15.36	<100	<100	560.48	<100	-	109.953

PSD Major Source Levels	250	250	250	250	250	250	-	-
PSD Significant Levels	25	-	40	40	40	100	-	-
Part 70 Major Source Levels	-	100	100	100	100	100	10	25

- (a) The source after the modification is still considered a major PSD stationary source because the VOC emissions exceed the applicable PSD level 250 tons per year.
- (b) The proposed modification is not a major PSD modification to an existing PSD major source because the PM emissions are less than the applicable level of 25 tons per year and the VOC emissions are less than the applicable level or 40 tons per year.
- (c) The source after the modification is still a Title V major stationary source because the VOC emissions are greater than 100 tons per year, the worst case single HAP emissions exceed the applicable level of 10 tons per year, and the combined HAP emissions exceed 25 tons per year.

### Federal Rule Applicability

#### New Source Performance Standards (NSPS):

There are still no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to the source.

#### National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are still no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Part 61 and 63) that apply to the source.

### State Rule Applicability

There are no new entire state rules that become applicable or existing state rule conditions that need to be changed as a result of the proposed paint booth.

### Individual State Rule Applicability

#### 326 IAC 6-3 (Process Operations), Paint Booth:

The proposed paint booth is subject to 326 IAC 6-3-2.



Wabash National has stated that they want the proposed paint booth (PB19) to be limited along with the existing paint booths 10 - 15, and 17. These booths are located in Section D.1. The 326 IAC 6-3-2 PM overspray requirements in Section D are found in Condition D.1.3. Condition D.1.3 specifies the PM limitations for paint booths PB-1 - PB5, PB7, and PB9. The permit does not include any PM limitations for paint booths PB10 - PB18.

However, Page 9 of 11 of the Technical Support Document (TSD) states that there are 326 IAC 6-3-2 PM limitations associated with paint booths PB10 - PB18. Therefore, Condition D.1.3 shall be amended as follows, to include paint booth PB10 - PB18, include proposed paint booth PB19, and take into account the fact that Paint Booths PB16 and PB18 have been removed (first significant permit modification 157-11744-00046, issued June 28, 2000).

#### D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

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Pursuant to ~~GP 157-4162, issued on June 23, 1995,~~ **326 IAC 6-3-2**, the particulate matter from the surface coating operations, PB1 - PB5, PB7, and PB9, **PB10 - PB15, PB17, and PB19**, shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

The dry filters shall be in operation at all times the spray coating is in operation, in order to comply with this limit.

#### **326 IAC 8-2-9 (Miscellaneous Metal Coating Operations):**

This paint booth is subject to 326 IAC 8-2-9 because the coatings applied at the booth generate daily VOC emissions greater than 15 pounds, metal parts are coated, the first two digits of the SIC code are 37, and the surface coating operation is not one of the exemptions under 326 IAC 8-2-9(b).

The permit condition shall be stated as follows:

Pursuant to 326 IAC 8-2-9, the owner or operator shall limit the volatile organic compound (VOC) content of the extreme performance coatings and/or forced warm air dried coatings applied to the metal parts and/or products at the paint booth to three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

Extreme performance and forced warm air dried coatings are defined as follows:

- (a) Extreme performance coatings are defined as coatings that are designed for exposure to temperatures consistently above ninety-five degrees Celsius (95° C), detergents, abrasive or scouring agents, solvents, corrosive atmospheres, outdoor weather at all times, or similar environmental conditions.
- (b) Forced warm air dried coatings are defined as coatings that are forced warm air dried at temperatures up to one hundred ninety-four degrees Fahrenheit (194°F).

In addition, all solvents sprayed from the application equipment of the paint booth during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that minimizes evaporation.

The following calculations determine the as applied VOC content of the coatings applied based on the respective weight percent organics, and respective volume percent water.

All of the coating are applied "as supplied".

lb/gal \* fraction organics / (1 - fraction H2O)

Coating	Density lb/gal	Wt. Fraction Organics	Vol. Fraction H2O	lb VOC/gal. Less H2O
AAA0500	11.8	.277	0.00	<b>3.26</b>
ZPG-9035	7.6	.434	0.00	<b>3.30</b>

None of the as supplied coating VOC contents exceed the 326 IAC 8-2-9 VOC content limit of 3.5 lb/gal, less water.

Condition D.1.1 limits the source paint VOC contents pursuant to 326 IAC 8-2-9. Therefore, Condition D.1.1 shall be amended as follows to include proposed paint booth PB19.

**D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9 (Miscellaneous Metal Coating)]**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booths, PB1 - PB5, PB7, PB9 - PB15, PB17, and **PB19**, the roll coating line, RC, and at the dip line, PB8, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

**Other Permit Changes:**

**Section A, Condition A.2:**

Condition A.2, the source emission unit description, will be changed as follows to include paint booth PB19.

**A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]**

The source consists of the following permitted emission units and pollution control devices:

(1) ~~Sixteen~~ **Seventeen (167)** surface coating operations, identified as:.....

.....(o) PB17, with a maximum capacity of 0.21 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB17S,

- (p) **PB19, with a maximum capacity of 2.5 metal trailers per hour, using airless and air atomized spray application, panel filters for overspray control, and exhausting emissions to stack PB1S, and**
- (q) RC, with a maximum capacity of 5.66 metal trailer interiors per hour, using rollcoating application method, and no control, and exhausting to stack RCS,

**Section D.1, Section Unit Description:**

The unit description of Section D.1 shall be changed as follows to include paint booth PB19.

~~Sixteen~~ **Seventeen** (167) surface coating operations, identified as:.....

- .....(o) PB17, with a maximum capacity of 0.21 metal trailers per hour, using the airless spray application method, and panel filters for overspray control, and exhausting to stack PB17S,
- (p) **PB19, with a maximum capacity of 2.5 metal trailers per hour, using airless and air atomized spray application, panel filters for overspray control, and exhausting emissions to stack PB1S, and**
- (q) RC, with a maximum capacity of 5.66 metal trailer interiors per hour, using rollcoating application method, and no control, and exhausting to stack RCS,

**Condition D.1.2, PSD Minor Limits:**

Wabash National has proposed that the surface coating booth be placed under the PSD Minor Limit of 249 tons per year established for paint booths PB10 - PB15, and PB17 of Condition D.1.2(b), to simplify the record keeping requirements associated with paint booth PB19.

Therefore, Condition D.1.2 shall be amended as follows to include paint booth PB19.

- (b) Pursuant to OP 4100-0046-0464, issued on October 9, 1990 **and Minor Permit Modification 157-15034-00046,**
- (1) the total amount of organic solvents delivered to the spray painting operations, PB10 - PB15, ~~and PB17,~~ **and PB19**, including solvents from coatings, thinners and cleaning solvents, shall be limited to 249.6 tons per consecutive 12 month period.

**Condition D.1.8, Pollution Control Operation Requirements:**

Condition D.1.8 shall be amended as follows to include paint booth PB19.

**D.1.8 Pollution Control Equipment**

- (a) Pursuant to both CP 157-4162, Plt ID 157-00046, issued on June 23, 1995, ~~and OP 4100-0046-0464, issued on October 9, 1990,~~ **and minor source modification 157-15034-00036,** the dry filters for PM control shall be in operation at all times when the ~~fourteen~~ **fifteen** (145) paint booths (PB1 - PB5, PB7, PB9 - PB15, ~~and PB17,~~ **and PB19**) are in operation.
- (b) Pursuant to CP 157-4162, Plt ID 157-00046, issued on June 23, 1995, the regenerative thermal oxidizer, RTOX, for VOC control shall be in operation at all times when the dip line, PB8, is in operation.

**Quarterly Reporting Form for Paint Booths PB10 - PB15 and PB17:**

The facility description of the quarterly report form for Paint Booths PB10 - PB15 and PB17 shall be changed as follows to include proposed paint booth PB19.

Facility: PB10 - PB15, ~~and~~ PB17, **and PB19**

**Conclusion**

The proposed paint booth shall be constructed and operated according to the requirements specified in Minor Permit Modification No. **157-15068-00046**, and all other applicable requirements specified in existing Title V permit No. 157-6070-00046.